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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,751	04/17/2001	Eric A. Reiners	00-143	7391

7590 02/28/2003  
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EXAMINER

LOPEZ, FRANK D

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/836,751

Applicant(s)

REINERS ET AL.

Examiner

F. Daniel Lopez

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4-7, 17-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-7 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 17 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

Applicant's arguments filed December 17, 2002, have been fully considered but they are not deemed to be persuasive.

Applicant's arguments with respect to claims 17 and 20 have been considered but are deemed to be moot in view of the new grounds of rejection. The new grounds of rejection are necessitated by the added limitations concerning the third outlet and the third and fourth valves.

Applicant argues that Suzuki et al does not meet all of the limitations of claims 1 and 17, because the valve 126 controls all of the flow from the pressure source prior to the flow reaching the valve 127. This argument is moot, since claims 1 and 17 do not have any limitation defining how the independent valves are connected to the various outlets and inlet.

Applicant argues that Izumi et al does not meet all of the limitations of claims 1, 5-7 and 17-20, because the valve assemblies 100 or 101 do not control more than one load function, and there is no motivation to pick individual valves from the 100 and 101 assemblies to make another valve, which would function as claimed. Applicant has misunderstood the rejection. Valve subassemblies 100 and 101 are kept as is, except the subassemblies are combined into a valve assembly. This valve assembly meets all of the limitations of claims 1, 5-7 and 17-20.

Applicant argues that there is no motivation to combine Lubbers et al and Crull et al, because there is no motivation to pick and choose certain valves from two different patents and combine them as a valve assembly in a particular manner, and connect them in a particular fashion. The combination of Lubbers et al and Crull et al places the control valve (34) and fan (38) of Crull et al in parallel with the power steering valve and brake valve of Lubbers et al, which Crull et al clearly teaches (since the control valve and fan are in parallel with the brake and steering circuits 16 and 18). The motivation is clearly set forth in Crull et al. The motivation to combine all of the valves into a single valve assembly is for ease of assembly of the system, as discussed in the official notice.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

Claims 17-20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 17 line 7 “fluidly coupling said third outlet with said tank” and line 10-11 “fluid coupling said second outlet and said third outlet with a second hydraulic load”, is not supported by the specification; since the specification only shows the tank (24) coupled to the third outlet (40), not a second load.

Claim 20 does not further limit claim 18, since the third and fourth valves are claimed in claim 18 line 4-6.

Claims 18 and 19 are indefinite, since they depend from claim 17.

***Claim Rejections - 35 USC § 103***

Claims 1 and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Suzuki et al. Suzuki et al discloses a work machine having a hydraulic system carried by a frame and a method of operating the hydraulic system, comprising an independent metering valves including a plurality of independently and electronically controlled valves (e.g. 127, 126, fig 3), an inlet connected to a hydraulic pump (15), and first and second outlets connected to a fan motor (17) and a power steering system (16), respectively; but does not disclose that the independent metering valves are an assembly.

Official notice is taken that it is well known to combine a plurality of valves into a valve block assembly, for the purpose of ease of assembly of the system. It would have been obvious at the time the invention was made to one having ordinary skill in the art to combine the plurality of valves of Suzuki et al into a valve block assembly, for the purpose of ease of assembly of the system.

Claims 1, 5-7 and 17-20 are rejected under 35 U.S.C. § 103 as being unpatentable over Izumi et al. Izumi et al discloses a work machine having a hydraulic system carried by a frame and a method of operating the hydraulic system, comprising an independent metering valves including a plurality of independently and electronically controlled valves (e.g. 11, 70, fig 21), an inlet connected to a hydraulic pump (1), and first and second outlets connected to first and second motors (6, 7), respectively; with first and third valves (e.g. 102 and corresponding valve for motor 7, fig 8, see column 33 line 13-23, column 22 line 53-60) coupled between the pump and first and second motors, respectively, and second and fourth valves (e.g. 105 and corresponding valve for motor 7, fig 8) coupled between a tank and first and second motors, respectively; and first and second pressure sensors (207, 208, fig 21) coupled with first and second outlets; and that the first and third valves are part of a first valve block (100, fig 8) and the second and fourth valves are part of a second valve block (101, fig 8); but does not disclose that the independent metering valves are an assembly, or that the pressure sensors are part of the assembly.

Official notice is taken that it is well known to combine a plurality of valve blocks into a valve block assembly, for the purpose of ease of assembly of the system. It would have been obvious at the time the invention was made to one having ordinary skill in the art to combine the plurality of valve blocks of Izumi et al into a valve block assembly, for the purpose of ease of assembly of the system.

Official notice is taken that it is well known to connect a pressure sensor to a valve block by attaching the sensor directly to the valve block, for the purpose of ease of assembly of the system. It would have been obvious at the time the invention was made to one having ordinary skill in the art to attach the sensor directly to the valve block assembly of Izumi et al, thereby forming the pressure sensors are part of the assembly, for the purpose of ease of assembly of the system.

Claims 1, 2, and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Lubbers et al in view of Crull et al. Lubbers et al discloses a work machine having a hydraulic system carried by a frame, and method of operating the hydraulic system,

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comprising a pump (24) connected to an inlet of a valve assembly and having first and second outlets connected to a power steering system (via 28) and a brake system (via 40), respectively; with the valve assembly including an independently and electronically controlled brake valve (34) and non-independently controlled valves (e.g. 30); but does not disclose that the valve assembly includes at least a second independently and electronically controlled valve; that the first outlet is connected to a fan motor.

Crull et al teaches, for a hydraulic system comprising a pump (12) connected to a power steering system (18, column 3 line 53-55) and a brake system (16); that the pump is also connected to a fan motor (38) by a second independently and electronically controlled fan valve (10)

Since Lubbers et al and Crull et al are both from the same field of endeavor, the purpose disclosed by Crull et al would have been recognized in the pertinent art of Lubbers et al. It would have been obvious at the time the invention was made to one having ordinary skill in the art to connect the pump of Lubbers et al to a fan motor by a second independently and electronically controlled valve, as taught by Crull et al, as a matter of engineering expediency.

Official notice is taken that it is well known to combine a plurality of valves into a valve block assembly, for the purpose of ease of assembly of the system. It would have been obvious at the time the invention was made to one having ordinary skill in the art to combine the fan valve with the valve assembly of Lubbers et al, for the purpose of ease of assembly of the system.

Since the first outlet has no particular indication, the fan motor can be connected to the "first outlet", through the fan valve, and the power steering system can be connected to a "third" outlet; with the only difference in the system being what the outlets are called.

### ***Conclusion***

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

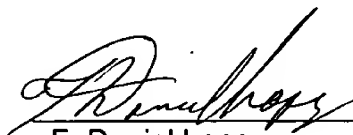
Claims 21 and 22 are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is (703) 308-0008. The examiner can normally be reached on Monday-Thursday from 6:30 AM -4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on (703) 308-1044. The fax number for this group is (703) 872-9302. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.

  
F. Daniel Lopez  
Primary Examiner  
Art Unit 3745  
February 26, 2003